

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION N	0.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/628,334		07/29/2003	Wei-Liang Chen	MR2561-129	6072	
4586	7590	06/14/2005		EXAMINER		
	,	LEIN & LEE ENTER DRIVE-SUITI	MCKINNON, TERRELL L			
		MD 21043	3 101	ART UNIT PAPER NUMBER		
	ŕ			3743		
				DATE MAIL ED: 06/14/2005		

Please find below and/or attached an Office communication concerning this application or proceeding.

			•	,~~~				
		Application No.	Applicant(s)					
Office Action Summary		10/628,334	CHEN ET AL.					
		Examiner	Art Unit					
		Terrell L. Mckinnon	3743					
Period fo	The MAILING DATE of this communication apports. or Reply	pears on the cover sheet wit	th the correspondence address	;				
THE - Exte after - If the - If NC - Failt Any	MAILING DATE OF THIS COMMUNICATION. Insions of time may be available under the provisions of 37 CFR 1.1 In SIX (6) MONTHS from the mailing date of this communication. In provide the provision of the provisio	. 136(a). In no event, however, may a rely within the statutory minimum of thirty will apply and will expire SIX (6) MON e, cause the application to become AB	eply be timely filed y (30) days will be considered timely. THS from the mailing date of this communi ANDONED (35 U.S.C. § 133).	ication.				
Status								
1)⊠	Responsive to communication(s) filed on 29 J	' <u>uly 2003</u> .						
2a) <u></u> □	This action is FINAL. 2b)⊠ This action is non-final.							
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Disposit	ion of Claims							
5) <u></u> 6)⊠	Claim(s) 1-15 is/are pending in the application 4a) Of the above claim(s) is/are withdra Claim(s) is/are allowed. Claim(s) 1-15 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or	wn from consideration.						
Applicat	ion Papers	•						
10)⊠	The specification is objected to by the Examine The drawing(s) filed on 29 July 2003 is/are: a) Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct The oath or declaration is objected to by the Examine The specification is objected to be specification.	☑ accepted or b)☐ object drawing(s) be held in abeyand tion is required if the drawing(ce. See 37 CFR 1.85(a). s) is objected to. See 37 CFR 1.1	` '				
Priority (under 35 U.S.C. § 119							
а)	Acknowledgment is made of a claim for foreign All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea See the attached detailed Office action for a list	ts have been received. ts have been received in Apority documents have been ou (PCT Rule 17.2(a)).	pplication No received in this National Stage	e •				
Attachmen	• •							
2) Notice 3) Infor	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/08) er No(s)/Mail Date	Paper No(s	ummary (PTO-413))/Mail Date formal Patent Application (PTO-152) 					

Application/Control Number: 10/628,334

Art Unit: 3743

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- 2. Claims 1-6 and 11-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Ruckdeschel (U.S. 6,545,352).

Ruckdeschel discloses an assembly for mounting electronic modules to heat dissipators comprising all of the applicant's limitations of the claimed invention.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ruckdeschel (U.S. 6,545,352) in view of Harris (U.S. 5,548,090).

Ruckdeschel's invention discloses all of the claimed limitations from above except for the heat dissipation pad having a fixed portion.

Application/Control Number: 10/628,334

Art Unit: 3743

5. However, Harris teaches a heat dissipation pad having a fixed portion (18) (Figs. 1 and 2).

Given the teachings of Harris, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the heat dissipating structure of Ruckdeschel with heat dissipation pad having a fixed portion.

Doing so would provide a means of efficiently and reliably securing the dissipating structure.

6. Claims 7-9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ruckdeschel (U.S. 6,545,352) in view of Harris (U.S. 5,548,090) As applied to claims above, and further in view of Wang (U.S. 6,373,700).

Ruckdeschel's invention, as modified by Harris, discloses all of the claimed limitations from above except for a heat pipe, which one end connects the heat conducting plate to bring away heat accumulated at the heat conducting plate; a plurality of heat dissipation fins connect another end of the heat pipe; and a fan is provided beside the plurality of heat dissipation fns.

7. However, Wang teaches one end connects the heat conducting plate to bring away heat accumulated at the heat conducting plate; a plurality of heat dissipation fins connect another end of the heat pipe; and a fan is provided beside the plurality of heat dissipation fns.

Given the teachings of Wang, it would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the heat sink assembly of Ruckdeschel with one end connects the heat conducting plate to bring away heat

Art Unit: 3743

accumulated at the heat conducting plate; a plurality of heat dissipation fins connect another end of the heat pipe; and a fan is provided beside the plurality of heat dissipation fns.

Doing so would provide an alternate thermally efficient means of transferring heat away from electronic heat generated devices.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references cited on the USPTO 892 discloses related limitations of the applicant's claimed and disclosed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrell L. Mckinnon whose telephone number is 571-272-4797. The examiner can normally be reached on Monday -Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Bennett can be reached on 571-272-4791. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Application/Control Number: 10/628,334

Art Unit: 3743

Page 5

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the

Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Terrell L Mckinnon Primary Examiner Art Unit 3743 June 13, 2005